



#5

<110> TOBIN, ELAINE
WANG, ZHI-YONG
SUN, LIN

<120> PHYTOCHROME REGULATED
TRANSCRIPTION FACTOR FOR CONTROL OF HIGHER PLANT
DEVELOPMENT

<130> p601-D-36315.60100

<140> US 08/843,572

<141> 1997-04-18

<160> 13

<170> SOFTWARE: Microsoft Word 7.0 (DOS text file)

<210> 1:

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 Gly
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| gat Asp | tct Ser | agt Ser | ggt Gly 295 | ggc Gly | tca Ser | cct Pro | gtt Val | cca Pro 300 | ggg Gly | aac Asn | tca Ser | cct Pro 305 | ccg Pro 305 | aat Asn | ctg Leu | 3067 |
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| gcc Ala | aat Asn 325 | gga Gly | tta Leu | tta Leu | cct Pro | tta Leu 330 | tgt Cys | gct Ala | cct Pro | ctt Leu | agt Ser 335 | tca Ser | ggg Gly | ggg Gly | ttc Phe | 3163 |
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| aca Thr | aaa Lys | gca Ala | agc Ser | act Thr 360 | tta Leu | caa Gln | cat His | ggt Gly | tct Ser 365 | gtg Val | cag Gln | agc Ser | cga Arg | gag Glu 370 | caa Gln | 3259 |
| gaa Glu | cac His | tcc Ser | gag Glu 375 | gca Ala | tca Ser | aag Lys | gct Ala | cga Arg 380 | tct Ser | tca Ser | ctg Leu | gac Asp 385 | tca Ser | gag Glu | gat Asp | 3307 |
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| gtt Val 420 | gac Asp | cgg Arg | tcc Ser | tcg Ser | tgt Cys 425 | ggc Gly | tca Ser | aac Asn | act Thr | ccg Pro 430 | tcg Ser | agt Ser | agt Ser | gat Asp 435 | gat Asp | 3451 |
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| gtg Val | aaa Lys | gaa Glu | acg Thr 455 | aat Asn | gaa Glu | gac Asp | act Thr | aat Asn 460 | aaa Lys | cct Pro | caa Gln | act Thr 465 | tca Ser | gag Glu | tcc Ser | 3547 |
| aat Asn | gca Ala | cgc Arg | cgc Arg | agt Ser | aga Arg | atc Ile | agc Ser 475 | tcc Ser | aat Asn | ata Ile | acc Thr | gat Asp 480 | cca Pro | tgg Trp | aag Lys | 3595 |
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| ttg | aat | gca | aaa | tct | ctg | gaa | aac | ggt | aat | gag | caa | gga | cct | cag | act | 909 | |
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| Ser | Ser | Leu | Ser | His | Pro | Pro | Ser | Glu | Pro | Asp | Ser | His | Pro | His | Thr | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| gtt | gca | gga | gat | tat | cag | tcg | ttt | cct | aat | cat | ata | atg | tca | acc | ctt | 1053 | |
| Val | Ala | Gly | Asp | Tyr | Gln | Ser | Phe | Pro | Asn | His | Ile | Met | Ser | Thr | Leu | | |
| | | | 260 | | | | | 265 | | | | | | 270 | | | |
| tta | caa | aca | ccg | gct | ctt | tat | act | gcc | gca | act | ttc | gcc | tca | tca | ttt | 1101 | |
| Leu | Gln | Thr | Pro | Ala | Leu | Tyr | Thr | Ala | Ala | Thr | Phe | Ala | Ser | Ser | Phe | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| tgg | cct | ccc | gat | tct | agt | ggt | ggc | tca | cct | gtt | cca | ggg | aac | tca | cct | 1149 | |
| Trp | Pro | Pro | Asp | Ser | Ser | Ser | Gly | Ser | Pro | Val | Pro | Gly | Asn | Ser | Pro | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| ccg | aat | ctg | gct | gcc | atg | gcc | gca | gcc | act | gtt | gca | gct | gct | agt | gct | 1197 | |
| Pro | Asn | Leu | Ala | Ala | Met | Ala | Ala | Ala | Thr | Val | Ala | Ala | Ala | Ser | Ala | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| tgg | tgg | gct | gcc | aat | gga | tta | tta | cct | tta | tgt | gct | cct | ctt | agt | tca | 1245 | |
| Trp | Trp | Ala | Ala | Asn | Gly | Leu | Leu | Pro | Leu | Cys | Ala | Pro | Leu | Ser | Ser | | |
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| ggt | ggt | ttc | act | agt | cat | cct | cca | tct | act | ttt | gga | cca | tca | tgt | gat | 1293 | |
| Gly | Gly | Phe | Thr | Ser | His | Pro | Pro | Ser | Thr | Phe | Gly | Pro | Ser | Cys | Asp | | |
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| gta | gag | tac | aca | aaa | gca | agc | act | tta | caa | cat | ggt | tct | gtg | cag | agc | 1341 | |
| Val | Glu | Tyr | Thr | Lys | Ala | Ser | Thr | Leu | Gln | His | Gly | Ser | Val | Gln | Ser | | |
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| cga | gag | caa | gaa | cac | tcc | gag | gca | tca | aag | gct | cga | tct | tca | ctg | gac | 1389 | |
| Arg | Glu | Gln | Glu | His | Ser | Glu | Ala | Ser | Lys | Ala | Arg | Ser | Ser | Leu | Asp | | |
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| tca | gag | gat | gtt | gaa | aat | aag | agt | aaa | cca | gtt | tgt | cat | gag | cag | cct | 1437 | |
| Ser | Glu | Asp | Val | Glu | Asn | Lys | Ser | Lys | Pro | Val | Cys | His | Glu | Gln | Pro | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| tct | gca | aca | cct | gag | agt | gat | gca | aag | ggt | tca | gat | gga | gca | gga | gac | 1485 | |
| Ser | Ala | Thr | Pro | Glu | Ser | Asp | Ala | Lys | Gly | Ser | Asp | Gly | Ala | Gly | Asp | | |

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|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|--|-----|--|--|--|--|--|--|--|--|--|--|
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| aga | aaa | caa | gtt | gac | cgg | tcc | tcg | tgt | ggc | tca | aac | act | ccg | tcg | agt | 1533 | | | | | | | | | | | | | | |
| Arg | Lys | Gln | Val | Asp | Arg | Ser | Ser | Cys | Gly | Ser | Asn | Thr | Pro | Ser | Ser | | | | | | | | | | | | | | | |
| | | | 420 | | | | | | | 425 | | | | | | | 430 | | | | | | | | | | | | | |
| agt | gat | gat | gtt | gag | gcg | gat | gca | tca | gaa | agg | caa | gag | gat | ggc | acc | 1581 | | | | | | | | | | | | | | |
| Ser | Asp | Asp | Val | Glu | Ala | Asp | Ala | Ser | Glu | Arg | Gln | Glu | Asp | Gly | Thr | | | | | | | | | | | | | | | |
| | | | 435 | | | | | | | 440 | | | | | | | 445 | | | | | | | | | | | | | |
| aat | ggt | gag | gtg | aaa | gaa | acg | aat | gaa | gac | act | aat | aaa | cct | caa | act | 1629 | | | | | | | | | | | | | | |
| Asn | Gly | Glu | Val | Lys | Glu | Thr | Asn | Glu | Asp | Thr | Asn | Lys | Pro | Gln | Thr | | | | | | | | | | | | | | | |
| | | | 450 | | | | | | | 455 | | | | | | | 460 | | | | | | | | | | | | | |
| tca | gag | tcc | aat | gca | cgc | cgc | agt | aga | atc | agc | tcc | aat | ata | acc | gat | 1677 | | | | | | | | | | | | | | |
| Ser | Glu | Ser | Asn | Ala | Arg | Arg | Ser | Arg | Ile | Ser | Ser | Asn | Ile | Thr | Asp | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | 480 | | | | | | | | | | | | |
| cca | tgg | aag | tct | gtg | tct | gac | gag | ggt | cga | att | gcc | ttc | caa | gct | ctc | 1725 | | | | | | | | | | | | | | |
| Pro | Trp | Lys | Ser | Val | Ser | Asp | Glu | Gly | Arg | Ile | Ala | Phe | Gln | Ala | Leu | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | 495 | | | | | | | | | | | | |
| ttc | tcc | aga | gag | gta | ttg | ccg | caa | agt | ttt | aca | tat | cga | gaa | gaa | cac | 1773 | | | | | | | | | | | | | | |
| Phe | Ser | Arg | Glu | Val | Leu | Pro | Gln | Ser | Phe | Thr | Tyr | Arg | Glu | Glu | His | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | 510 | | | | | | | | | | | | |
| aga | gag | gaa | gaa | caa | caa | caa | caa | gaa | caa | aga | tat | cca | atg | gca | ctt | 1821 | | | | | | | | | | | | | | |
| Arg | Glu | Glu | Glu | Gln | Gln | Gln | Gln | Glu | Gln | Arg | Tyr | Pro | Met | Ala | Leu | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | 520 | | | | | | | | | | | | |
| gat | ctt | aac | ttc | aca | gct | cag | tta | aca | cca | gtt | gat | gat | caa | gag | gag | 1869 | | | | | | | | | | | | | | |
| Asp | Leu | Asn | Phe | Thr | Ala | Gln | Leu | Thr | Pro | Val | Asp | Asp | Gln | Glu | Glu | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | 530 | | | | | | | | | | | | |
| aag | aga | aac | aca | gga | ttt | ctt | gga | atc | gga | tta | gat | gct | tca | aag | cta | 1917 | | | | | | | | | | | | | | |
| Lys | Arg | Asn | Thr | Gly | Phe | Leu | Gly | Ile | Gly | Leu | Asp | Ala | Ser | Lys | Leu | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | 550 | | | | | | | | | | | | |
| atg | agt | aga | gga | aga | aca | ggt | ttt | aaa | cca | tac | aaa | aga | tgt | tcc | atg | 1965 | | | | | | | | | | | | | | |
| Met | Ser | Arg | Gly | Arg | Thr | Gly | Phe | Lys | Pro | Tyr | Lys | Arg | Cys | Ser | Met | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | 565 | | | | | | | | | | | | |
| gaa | gcc | aaa | gaa | agt | aga | atc | ctc | aac | aac | aat | cct | atc | att | cat | gtg | 2013 | | | | | | | | | | | | | | |
| Glu | Ala | Lys | Glu | Ser | Arg | Ile | Leu | Asn | Asn | Asn | Pro | Ile | Ile | His | Val | | | | | | | | | | | | | | | |
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| gaa | cag | aaa | gat | ccc | aaa | cgg | atg | cgg | ttg | gaa | act | caa | gct | tcc | aca | 2061 | | | | | | | | | | | | | | |
| Glu | Gln | Lys | Asp | Pro | Lys | Arg | Met | Arg | Leu | Glu | Thr | Gln | Ala | Ser | Thr | | | | | | | | | | | | | | | |
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